Planning Commission Date: September 22, 2004



# MILPITAS PLANNING COMMISSION AGENDA REPORT

Category: Public Hearing	Report prepared by: Kim Duncan
Public Hearing: Yes:	X No:
Notices Mailed On: 8-27-0	4 Published On: 8-26-04 Posted On: 8-27-04
TITLE:	USE PERMIT NO. UP2004-10.
Proposal:	Request to install six (6) telecommunication panel antennas on an existing 91-foot tall PG&E lattice tower with associated ground mounted equipment in a Single Family Residential (R1-6) zoning district.
Location:	865 Vasona Street and adjacent lot (APN: 022-05-077 & 079)
RECOMMENDATION:	Approve Use Permit No. UP2004-8 with conditions.
Applicant:	Cingular Wireless c/o Leah Hernikl, Ruth and Going, Inc., 2216 The Alameda, Santa Clara, CA 95050
Property Owners:	City of Milpitas, 455 East Calaveras Boulevard, Milpitas, CA 95035 Pedro Pena, 865 Vasona Street, Milpitas, CA 95035
Previous Action(s):	None
Environmental Info:	Exempt pursuant to Section 15301, Class 1(e)
General Plan Designation:	Single Family Low Density
Present Zoning:	Single Family Residential (R1-6)
Existing Land Use:	Residential/vacant lot
Agenda Sent To:	Applicant, owners, PG&E
Attachments:	Plans, project description, photo simulations, telecommunications questionnaire, FCC license, power density study, build-out map
PJ No.	2369



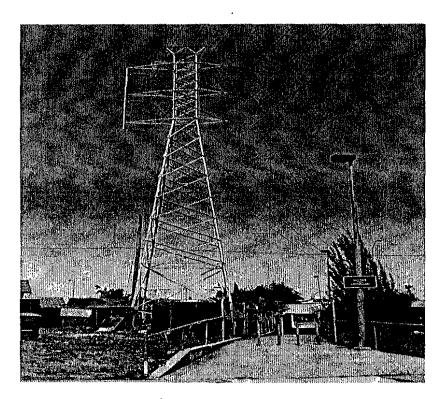
## BACKGROUND

This item is continued from the September 8, 2004 Planning Commission meeting to allow the applicant more time to submit required documents.

In 1959, the Planning Commission and City Council approved a 170-lot single-family residential subdivision (Curtner Estates, Unit 1). Final Map recordation occurred in March, 1960 and, subsequently, the subdivision development was completed around the mid-1960's.

## **Site Description**

The project site consists of two (2) adjacent parcels in a single-family residential neighborhood. The parcel located to the south is approximately 8,900 square feet and developed with a single-family residence. A 20 foot PG&E public utility easement overlays the north side of the parcel. The adjacent City owned parcel located to the north is hourglass shaped with a public utility easement overlay on the entire parcel. The parcel is developed with a public pedestrian path that goes under Abel Street to Coyote Street, connecting the neighborhood to Hall Memorial Park and Curtner Elementary School. An approximate 91-foot tall lattice tower straddles the property line at the rear of both parcels in the PG&E utility easement and is enclosed by a chain link fence. The project site is bound to the west by North Abel Street and Vasona Street to the east. Surrounding development on all sides of the project site consists of single-family residential neighborhoods. Existing conditions of the project area include litter, dead vegetation, and damaged/missing chain link fencing.



Project site looking west from Vasona Street

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## THE APPLICATION

This Use Permit application is submitted pursuant to Section 57.02-15.1 (Conditional Use Permit for telecommunication antenna facilities) of the Milpitas Zoning Ordinance.

## **Project Description**

The applicant proposes to install six (6) telecommunication panel antennas on top of an existing 91-foot tall PG&E tower with associated ground-mounted equipment at the base of the tower. The four (4) foot, three (3) inch tall panel antennas will be mounted on a new five (5) foot, seven (7) inch tall lattice support structure ("top hat") on top of the lattice tower. The antennas would be installed in three (3) sectors, with two (2) antennas per sector, located on the north, east and southwest portions of the top hat. The proposed top hat support structure is designed to complement the existing PG&E lattice tower by incorporating cross bracing, therefore mimicking the existing latticework design of the tower. In addition, the panel antennas will be mounted with minimal horizontal extensions from the top hat so the antennas will remain close to the support structure, minimizing antenna projection and visibility. The antennas and support structure would be the same metallic color as the existing tower.

The project also includes the installation of four (4) associated equipment (BTU) cabinets. The five (5) foot, ten (10) inch tall cabinets would be located within a proposed 195 square foot enclosure under the tower footprint. Staff notes the plans indicate the proposed six (6) foot tall enclosure would be constructed of redwood, however the applicant has agreed to a condition of approval to construct the enclosure using concrete masonry blocks. The enclosure would have a flat roof projecting 2 feet above the enclosure walls (maximum height of enclosure with roof is 8 feet). No air conditioning units or other noise generating equipment are proposed with this application.

In addition, the applicant is proposing several site improvements, which include:

- Remove the existing, deteriorated chain link fencing on both sides of the pedestrian walkway.
- Replace chain link fencing with black, wrought iron fencing.
- Landscape interior of fenced area with decorative rock groundcover.
- Landscape plantings inside the fence in City owned portion.
- Weed removal and plantings behind the project site in the Abel Street public right of way.

## Conformance with the General Plan

The proposed project complies with the City's General Plan in terms of Policy 2.d-G-1, which provides for all possible community facilities and utilities which commensurate with present and anticipated needs of Milpitas. The proposed project will provide a service that promotes a highly

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amenable community environment as more residents rely on cellular telephone usage as their primary communication tool.

## Conformance with the Zoning Ordinance

The project complies with the City's Zoning Ordinance pursuant to Section 57.00 (57.01 (b), 57.02-15, and 57.03-5), which allows for telecommunications facilities as conditional uses in all zoning districts if it is deemed essential or desirable to the public, suitable to the site, and not detrimental or injurious to properties in the vicinity. The proposed site is located on an existing PG&E lattice tower in a Single Family Residential zoning district. The proposed antennas will be integrated into a support structure designed to match the existing latticework of the tower. The associated ground-mounted equipment will be in a new enclosure located within the footprint of the lattice tower, which will screen the equipment from surrounding viewpoints. The project site area will be landscaped with plantings and groundcover, and a new, high quality wrought iron fence will be installed, beautifying the area. In addition, the facility will provide enhanced coverage for Cingular cell phone users and improve future services.

## **ISSUES**

## **Community Impact**

The applicant is proposing to install six (6) telecommunication panel antennas on an existing PG&E lattice tower. The PG&E lattice tower is located between Vasona and North Abel Streets, just south of the Jacklin Road overpass, and visible from surrounding residential neighborhoods. The proposed design includes incorporating the existing latticework design into the top hat support structure with minimal projection of antenna placement and similar metallic color as the existing tower. However, staff had concerns regarding the visual impact of the proposed antennas on the surrounding residential neighborhoods. A community meeting, which was noticed to all residents within a 1000-foot radius of the project site, was held on June 17, 2004 to request input. One concerned resident attended the meeting and voiced opposition to the proposed antennas due to health, safety and aesthetic concerns. In addition, the resident suggested an alternate location, which the applicant subsequently researched and determined unsuitable for telecommunication antenna placement.

Existing conditions on the project site include, litter, weeds, dead and overgrown vegetation, and damaged/missing chain link fencing. The pedestrian walkway connects the residential neighborhood to Curtner Elementary School and Hall Memorial Park and is heavily utilized by families with children of all ages. The applicant has worked closely with City staff and is proposing the following site improvements: replacement of the dilapidated chain link fence with a high quality wrought iron fence, removal of existing weeds in the project area, extend the City's irrigation line to support/maintain proposed new landscaping along the Abel Street right of way, and landscape the enclosed PG&E tower site with decorative rock and plantings. To reduce the impact of the project, site improvements are incorporated that would benefit the surrounding residential community by beautifying the project site area. Typically, Planning staff supports telecommunication antenna applications with stealth designs to minimize the aesthetic impact of

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antennas on the community. Given the lattice tower design constraints, the project applicant worked closely with staff to minimize the visual impact by incorporating latticework design in the support structure, minimal projection of the antennas and matching metallic color of the antennas. Based on the integration of the panel antennas into the structure of the existing lattice tower, as well as proposed improvements to the site, staff has concluded that there would only be very minor visual impacts to the area.

The project is not anticipated to create any adverse impacts to surrounding land uses, in terms of traffic, parking, noise, odors or radio frequency emissions. Antenna sites are unmanned, and once installed, only require maintenance and repairs as needed, therefore no impacts on traffic or parking are anticipated. In addition, the antennas do not generate any noise and the associated equipment proposed within the enclosure under the footprint of the PG&E tower is not anticipated to create any noise impacts. Also, no odors are associated with this type of telecommunications facility.

In addition, due to technological advances in the telecommunications industry, more residents are relying on cellular telephones as their primary communication tool as opposed to landlines. Cellular telephone reception quality is a primary concern for residents and this project would improve the quality of existing and future services.

## **Radio Frequency Emissions**

In terms of radio frequency emissions, federal law preserves the City's authority to regulate the placement, construction, and modification of personal wireless service facilities (47 U.S.C. 332((c)(7)(A).) However, federal law does impose a limitation on this authority in the area of radio frequency (RF) emissions. The City is prohibited by federal law from regulating the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of RF emissions to the extent the facilities comply with the Federal Communications Commission's (FCC) regulations concerning such emissions. (47 U.S.C. 332(c)(7)(B)(iv).

FCC Guidelines. The FCC has established guidelines that place limits on human exposure to RF fields generated by personal wireless service facilities. These guidelines have been endorsed by the U.S. Environmental Protection Agency and the Food and Drug Administration. The FCC requires all personal wireless facilities to comply with these guidelines.

City Requirements. The City, however, may still verify that applicants are in compliance with the FCC's guidelines. Therefore, the City requires applicants applying for use approval for any telecommunications device to submit a power density report. This report is reviewed by the City's Telecommunications Advisory Commission to ensure compliance with the FCC's guidelines. To the extent that an applicant's facilities, as proposed, are not in compliance with the FCC's guidelines, the City may require the applicant to make appropriate modifications to the facilities to ensure compliance.

## **Telecommunications Commission Review**

The City's Telecommunications Commission reviewed this antenna project on May 24, 2004, and concluded that the applicants are in compliance with FCC guidelines. The Commission's

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standard conditions of approval, such as signage and emergency shutdown, will be carried forward on this project in order to ensure continued compliance with the FCC guidelines. The Commission's intent is that the signage explains the existence of antennas, so that in the event of an emergency to which the Fire Department responds, Fire personnel will be aware of the antenna site and obtain a shutdown of the antenna site.

## **Environmental Review**

This project is categorically exempt from further environmental review pursuant to Class 1, Section 15301(e) of the California Environmental Quality Act (CEQA) Guidelines. This section addresses "Existing Facilities", including additions to existing structures less than 2,500 square feet. The project involves modifications to an existing 91-foot tall PG&E lattice tower and installation of a 195 square foot ground mounted equipment cabinet under the footprint of an existing PG&E tower.

## RECOMMENDATION

Close the Public Hearing. Approve Use Permit No. UP2004-10 subject to the Findings and Special Conditions listed below.

## **FINDINGS**

- 1. The proposed project complies with the City's General Plan in terms of Policy 2.d-G-1 because the proposed telecommunication facility provides a service which commensurates with the present and anticipated needs of Milpitas residents and surrounding community.
- 2. The proposed project, as conditioned, complies with the City's Zoning Ordinance, which allows for telecommunications facilities as conditional uses in all zoning districts, will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated.
- 3. As conditioned, the proposed use at this location will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety and general welfare, since it will not create adverse traffic, parking, noise, odor or radio frequency emissions impacts.
  - The traffic and parking needs associated with the project at this site are limited to one monthly vehicular trip for maintenance purposes.
  - The project is located on top of an existing PG&E utility lattice tower.
  - The project complies with FCC guidelines as regards RF emissions.
- 4. The proposed antennae, cabinets and enclosure are categorically exempt from further environmental review pursuant to Class 1, Section 15301(e) of the California Environmental Quality Act (CEQA) Guidelines in that ("Existing Facilities", including but limited to addition to existing structures less than 2.500 square feet).



The project involves modifications to an existing 91-foot tall PG&E lattice tower and installation of a 195 square foot ground mounted equipment cabinet under the footprint of the existing PG&E lattice tower.

## SPECIAL CONDITIONS

- 1. This approval is for Use Permit No. UP2004-10 for the installation of six (6) telecommunication antennas and associated ground mounted equipment at 865 Vasona Street and adjacent lot (APNs: 022-05-077 & 079), as shown on the approved plans dated September 8, 2004. Any modifications to the Use Permit or conditions of approval require Planning Commission approval. (P)
- 2. Prior to building permit issuance, the project and plans shall conform with the following Fire Department and FCC requirements: (P, F):
  - a) The tower access locations and near antennas shall be labeled for the hazard with a sign approved for location and content by the Fire Department.
  - b) Each antennae shall be identified to denote its function, i.e., transmitter or receiver antennae. Shut down of transmitter antennas shall be provided. Contact the Fire Department for specifics on the requirements for shutdown. An indicator light shall be incorporated in the shutdown system. Shutdown procedures shall be reviewed and approved by the Fire Department.
  - c) With the issuance of a permit for installation, an inspection shall be performed by the Fire Department to verify labeling, signage and transmission shutdown. Inspection fees shall apply.
- 3. This use shall be conducted in compliance with all appropriate federal, state and local laws and regulations and in conformance with the approved plans. (P)
- 4. If at the time of application for building permit there is a project job account balance due to the City for recovery of fees, review of permits will not be initiated until the balance is paid in full. (P)
- 5. If, at the time of building permit issuance, there is a project job account balance due to the City for recovery of fees, issuance of building permits will not be initiated until the balance is paid in full. (P)
- 6. Prior to building permit issuance, the applicant shall submit revised plans of the enclosure that show the use of CMU (concrete masonry) construction with solid metal door and color that shall match the existing sound wall. (P)
- 7. Prior to building permit issuance, the applicant shall submit plans to the city for review and approval of all site improvements including, but not limited to, new wrought iron fencing, irrigation and landscaping. (P)
- 8. The applicant shall secure all appropriate agreements and encroachment permits for landscaping from appropriate property owners. (P)

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- 9. Prior to building permit final, all proposed irrigation, landscaping, and fencing and shall be installed. (P)
- 10. Prior to any permit issuance, the applicant shall secure a lease agreement with the City for the proposed antennas, landscaping and related equipment to be located within City property. (E)

Planning Division = (P) Engineering Department = (E)

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City of Milpitas Planning Division 455 E, Calaveras Blvd, Milpitas, CA 95035 (408) 586-3279

## Questionnaire for Telecommunication Facility Providers

All applicants requesting to install telecommunications facilities within the City of Milpites must complete this questionnaire as part of their use permit application submittal. Applicant Name: CINGULAR WIRELESS NO LEAH HERMIEL Applicant Address: RUTH 4-ID GOING, INC/2216 THE ALAMEDA Applicant Phone: (408) 296-2400 ×117 SANTA CLAPA, CA 95050 Applicant Fax and e-mail address: (408) 236 - 2410

LHERNIEL POTH ANDGOING, COM Provide a brief description of project (Telecommunications Facility): MSTALL WIRELESS 한다니트 ANTENNAS 에 한지되어 모두 투 TOWER Location of Project: ADV ACIENT TO 865 VASONA ST 1. Please indicate below the frequency range you plan to use? VHF Low-Band (30-50 Mhz or 72-76 Mhz) VHF High-Band (136-174 Mhz or 220-222 Mhz) UHF or T-Band (406-420 Mhz or 450-470 Mhz or 470-512 Mhz) 800 or 900 Mhz Band (800-960 Mhz except 900 Mhz Spread Spectrum) 900 Mhz Spread Spectrum (902-928 Mhz) Other than specified above (State frequency band in Mhz) Describe: 1850 TO 1910 MHz (RX) AND 1930 TO 1990 MHz (TX) 2 Please Indicate below the channel/system proposed for use? A single channel Multiple channel A frequency aglie system A spread spectrum system Other than specified above, Describe: 3. Will the operation be Narrow band (+5 Khz or less deviation) Broad band (greater than ±5 Khz deviation) Spread Spectrum Other than specified above. Describe:

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CITY OF MILPITAS

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radiation health standards? TES > TIMES 12 CHANNELS FOR Z400 W
What harizontal radiation pattern is planned for this project? .
Omnidirectional Sectored Directional (provide half power beam width)
What will the vertical radiation angle (half power beam width) be for your proposed antenna(s)?
Flow high above the local terrain(e.g., surrounding structures) will the center of radiation of your proposed antenna(a) be? 7 cet
How close to your proposed project is the nearest roadway 10 1/2 (Sephilles and, if elevated, what is the roadway's height above the local terrain? 14/4 feet
How close to your proposed project is the nearest requierly occupied building and how high is the top floor above local terrain? ADVACET HOMES ARE 15 TO 20 FEET ANDARY HORIZOUTANCE. TOP FLOORS ARE 20 Y- ABOVE GRAPE
What is the distance to the nearest existing radio communications or broadcast antenna(s) if less than 1/2 mile?
What is the status of your FCC license grant? LICENSE ATTACHED

# NOTE: The below listed items are also required by the applicant as part of this submittat;

- e) Provider's build-out map showing all sites anticipated within Milpitas (see question no. 2)
- Photo simulations of antenna(s) as viewed from at least three surrounding view points.
   Show "worst case" vantage points.
- List of all sites that were investigated for a particular search ring and the reasons why
  they were discarded. Include names and phone numbers of persons contacted regarding
  potential sites.
- d) Copy of applicants Power Density Study (see item no. 4).



# United States of America Federal Communications Commission

# RADIO STATION AUTHORIZATION

Commercial Mobile Radio Services
Personal Communications Service - Broadband

PACIFIC TELESIS MOBILE SERVICES 4420 Rosewood Drive Bldg. 2, 4th Floor Pleasanton, CA 94588 Call Sign:

KNLF209

Market:

M004

BAN FRANCISCO-OAKLAND-BAN JOSE

Channel Block: B

File Number:

00006-CW-L-95

The liceuses hereof is authorized, for the period indicated, to construct and operate radio transmitting facilities in accordance with the terms and conditions hereinsthar described. This authorization is subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts of Congress, international treaties and agreements to which the United States is a signatory, and all pertinent rules and regulations of the Federal Communications Communication, contained in the Title 47 of the U.S. Code of Federal Regulations.

Five-year Build Out Date . . . . . . . . . . . . . . . June 23, 2000

## CONDITIONS:

Pursuant to Section 309(h) of the Communications Act of 1934, as amended, (47 U.S.C. § 309(h)), this license is subject to the following conditions: This license does not vest in the licenses any right to operate a station nor any right in the use of frequencies beyond the term thereof nor in any other manner than authorized herein. Neither this license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended (47 U.S.C. § 151, et seq.). This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended (47 U.S.C. § 606).

Conditions continued on Page 2.

## WAIVERS:

No waivers associated with this authorization.

Issue Date: June 23, 1995

FCC Form 463a

## PROJECT DESCRIPTION Cingular Wireless Site SF 938

## PG&E Tower, Adjacent to 865 Vasona Street

## **Project Description**

Cingular Wireless proposes to develop a wireless phone antenna site at an existing, high voltage, PG& E tower. The tower is 91' 6" tall. The addition of the antennas would bring the total height to 97 feet. Six panel antennas (51" long, 13 ½" wide) would be placed at the top of the lattice tower, and colored to match. Associated equipment cabinets for the antennas would be placed within the footprint of the tower, and enclosed with a solid wood fence, and a shed roof.

## Project History and Alternate Sites Reviewed

Due to the low height of buildings in this area, there are limited opportunities for antenna placement on an existing structure. PG & E towers offer one of the few opportunities in residential areas to place antennas on an existing structure. The only other feasible alternative is also a PG & E tower, located at 850 Berryessa Street. This tower is also adjacent to residential uses. Cingular began development of plans for this location, but the property owner was not working with Cingular in entering into a ground lease. Therefore, Cingular continued research, and decided on the subject location.

Property Contact: Joe McEnerney, 850 Berryessa Street, (APN: 022-05-051)

## **Need for Project**

Cingular Wireless has an established network in the Bay Area, however they are continuing to improve system quality by filling in "holes" and weak areas of coverage, as well as provide additional capacity as their customer base increases. This site is intended to improve coverage and capacity to the surrounding residential areas, and to North Abel Street.



Diamond Services 3860 Industrial Way Benicia, Ca 94510

Ph: (707) 751-5900 Fax: (707) 751-5901

# RADIO FREQUENCY ANALYSIS PROPOSED PERSONAL COMMUNICATION SYSTEM BASE STATION CINGULAR WIRELESS SITE NO. SF 938-01 "VASONA PG&E" ADJACENT TO 865 VASONA STREET, MILPITAS, CALIFORNIA

By: Diamond Services Date 04/20/2004



Diamond Services 3860 Industrial Way Benicia, Ca 94510

Ph: (707) 751-5900 Fax: (707) 751-5901

# Report Summary

Based upon information provided by Cingular Wireless and the design engineer, and using the calculated method for determining RF field strength, it is the engineer's opinion that the PCS base station which will be located at a PG&E tower located adjacent to 865 Vasona Street, Milpitas, California will comply with the FCC's current prevailing standard for limiting human exposure to RF energy.

Due to the mounting method utilized, the general public would not normally be able to approach the antennas. Therefore, no significant impact on the general population is expected. The calculated electromagnetic field strength level in publicly accessible areas is less than the existing standard allows for exposure of unlimited duration. Additionally, due to the mounting method used, no significant impact on the environment is expected.

For personnel who maintain or work near the antennas, a training program in exposure to RF fields is recommended, since any access closer than 7 feet to the face of a Cingular PCS antenna could expose personnel to RF field levels greater than the occupational limits, and such access should be prohibited. At this site, public access to the face of an antenna would be difficult due to the mounting method utilized. Maintenance personnel should be instructed to contact Cingular Wireless prior to working in front of an antenna.

Additionally, RF warning signs should be posted at the base of the tower.

# Background

Diamond Services<sup>1</sup> has been retained by Cingular Wireless to conduct a Radio Frequency (RF) electromagnetic analysis for a Personal Communication System (PCS) base station to be located at a PG&E tower located adjacent to 865 Vasona Street, Milpitas, California. This analysis consists of a review of the proposed site conditions, calculation of the estimated RF field strength of the PCS base station, and the provision of a comparison of the estimated field strength with the Federal Communication Commission (FCC) recommended guidelines for human exposure to RF electromagnetic fields.

# Site Description

Based upon the drawings provided by the design engineer, six new PCS antennas will be mounted on an existing PG&E tower. The antennas will be mounted approximately 92' – 9" (to bottom of antennas) above ground level. The antennas will be oriented such that the main lobes are oriented toward the horizon. Normal public and occupational access to the front of the antennas is not expected due to the mounting location and method utilized.

# Field Strength Calculation Methodology

A generally accepted method is used to calculate the expected RF field strength. The method uses the FCC's recommended equation<sup>2</sup> which predicts field strength on a worst case basis by doubling the predicted field strength. The following equation is used to predict maximum RF field strength:

Equation 1 
$$S = \frac{(2)^2 PG}{4\pi R^2} = \frac{PG}{\pi R^2} = \frac{EIRP}{\pi R^2}$$

Where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Using a maximum effective radiated power of 400 watts, and a down tilt of 5°, the maximum calculated field strength for this site at 6'-6" above ground level in front of an antenna is 0.0008 mW/cm<sup>2</sup>. Using this result, the maximum calculated field strength at ground level is 0.08% of the applicable public limit for uncontrolled exposure.

Calculations were performed for the main antenna lobe, the -3dB point, and the first and second lower lobes.

See Table 1 for the FCC's guidelines on Maximum Permissible Exposure (MPE). Note that the RF range referenced for this analysis is the range of 1500 – 100,000 Mhz shown in Table 1, which is included in Appendix A.

<sup>2</sup> Reference Federal Communication Commission Office of Engineering Technology Bulletin 65

# **Exposure Environments**

The FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. The decision as to which tier applies in a given situation should be based on the application of the following definitions.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

For purposes of applying these definitions, awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. Warning signs and labels can also be used to establish such awareness as long as they provide information, in a prominent manner, on risk of potential exposure and instructions on methods to minimize such exposure risk. For example, a sign warning of RF exposure risk and indicating that individuals should not remain in the area for more than a certain period of time could be acceptable.

Another important point to remember concerning the FCC's exposure guidelines is that they constitute *exposure* limits (not *emission* limits), and they are relevant only to locations that are *accessible* to workers or members of the public. Such access can be restricted or controlled by appropriate means such as the use of fences, warning signs, etc., as noted above. For the case of occupational/controlled exposure, procedures can be instituted for working in the vicinity of RF sources that will prevent exposures in excess of the guidelines. An example of such procedures would be restricting the time an individual could be near an RF source or requiring that work on or near such sources be performed while the transmitter is turned off or while power is appropriately reduced.

# Qualifications of Reporting Engineer

Mr. Runte has been involved in the measurement of RF emissions since 1979. He has designed numerous RF systems including both site design and RF system design. He is a registered Professional Engineer in the state of California, and all contents of this report are true and correct to the best of his knowledge.

Signed:

Matthew J. Runte, P.E.

Date: <u>4//0//</u>

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**Professional Engineer Stamp** 

## APPENDIX A

## Term Definitions

**Exposure** Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.

**Exposure, partial-body**. Partial-body exposure results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources or in the near field.

General population/uncontrolled exposure. For FCC purposes, applies to human exposure to RF fields when the general public is exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Maximum permissible exposure (MPE). The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.

Occupational/controlled exposure. For FCC purposes, applies to human exposure to RF fields when persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see definition above), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

## <u>Table 1</u>. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

## (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	$(900/f^2)*$	6
30-300	61.4	0.163	1.0	6
300-1500	<del></del> -		f/300	6
1500-100,000			5	6

## (B) Limits for General Population/Uncontrolled Exposure

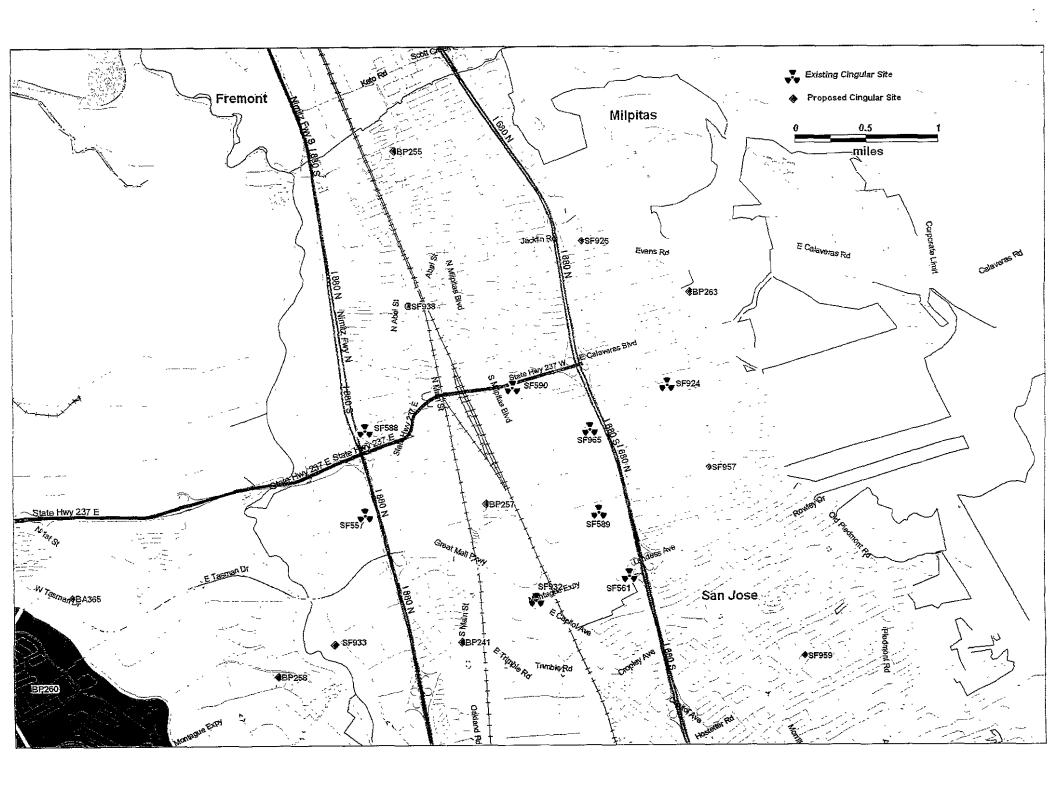
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	$(180/f^2)*$	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

<sup>\*</sup>Plane-wave equivalent power density



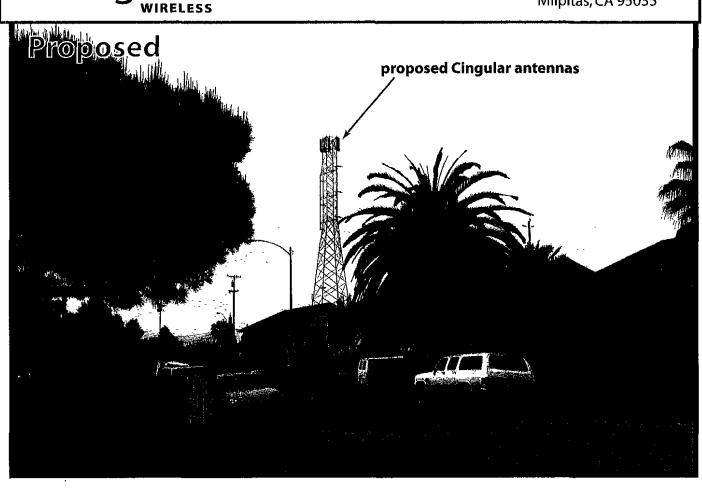


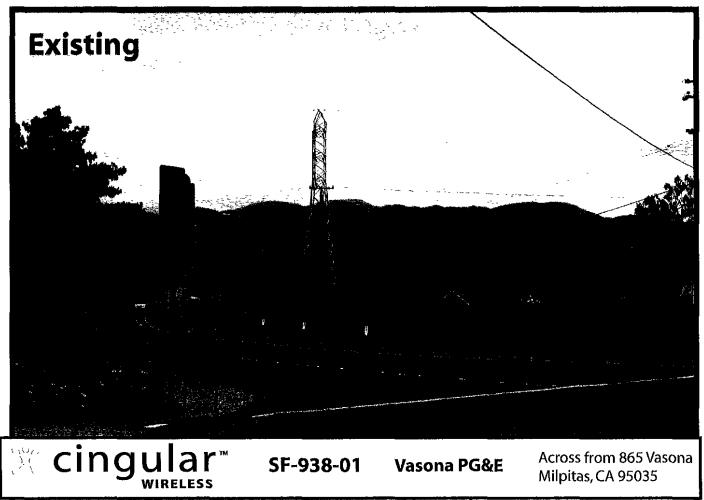
% cingular™

SF-938-01

Vasona PG&E

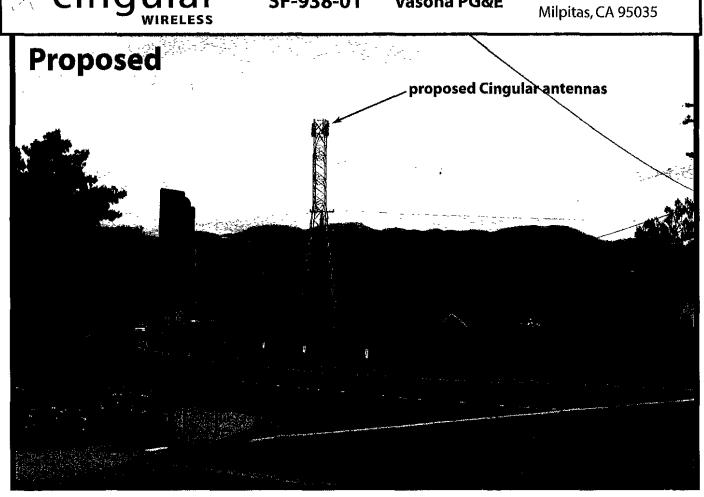
Across from 865 Vasona Milpitas, CA 95035

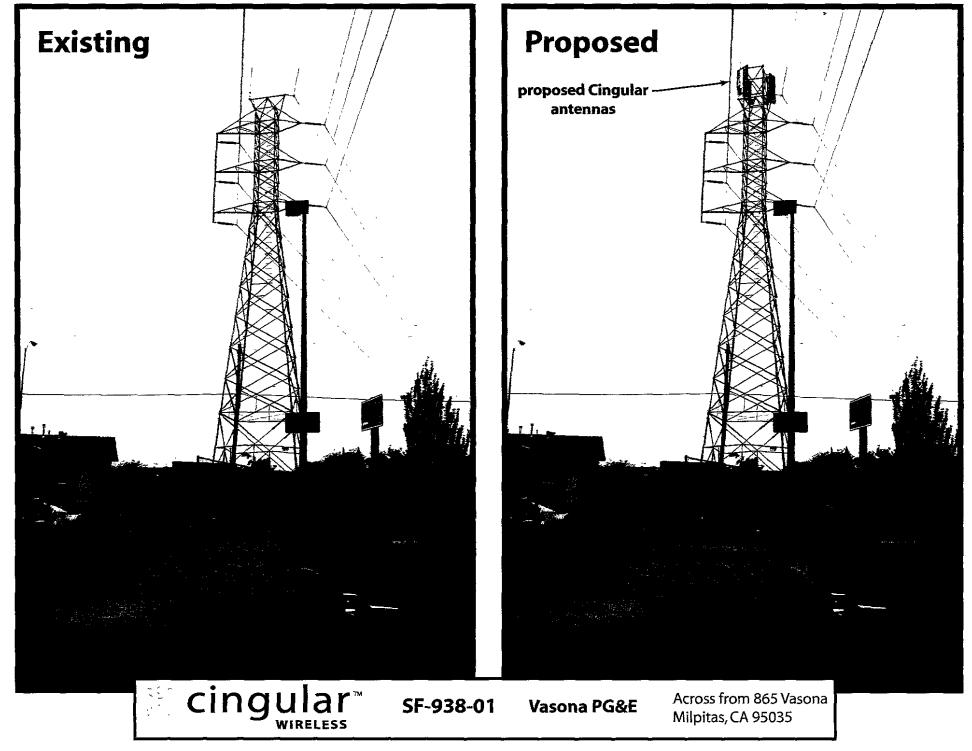




SF-938-01

Vasona PG&E





WIRELESS 4420 Rosewood Dr. Bldg. 2, 3rd Floor Pleasenton, CA 94588



DATE: 04/13/04 DRAWN BY: TO SF-958-0 FILE NO.:

> SF-938-01 VASONA PG&E

04/14/04 80% ZONING ISSUE TO

RECEIVED MILPITAS, CA

REFERENCECITY OF MILPITAS PLANNING DIVISION

A C-1 SITE SURVEY (EXISTING CONDITIONS DIVISION

## **GENERAL NOTES**

- DRAWINGS ARE NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE. THIS SET OF PLANS IS INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSES ONLY, UNLESS NOTED OTHERWISE, THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS. EQUIPMENT, LABOR AND ANYTHING ELSE DEEMED NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HEREIN.
- ANTHRING ELSE DEBUEN NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HERBEN.

  ALL WORK PERFORMED AND MARCES CONTRACTOR SHALL EN INSTRICT ACCORDANCE WITH ALL APPLICABLE

  COES, REDULATIONS AND ORDINANCES CONTRACTOR SHALL BY A MICHES AND COMPLET WITH ALL

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  ACCORDANCE WITH ALL APPLICABLE MINIOPANCA AND UTILITY COMPANY SECRETARIOS AND LOCAL AND

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  1999 MARGINEL BLECTIC CODE

  2001 CLAFFORM CODES

- NE DISCREE NES MADE SERVI EFFORT IN DETAIL INC COMPLETE SCORE OF VARIE IN THE CONSTRUCTION AND CONTRACT DOUGNESTS. COMPACTORS ARE REVERTILESS CONDICIONED THAT MADE COMESSINS OF SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND PREPORTEDISTS IN ACCORDANCE WITH THE RITE. FOR THE DISCREENING THE PROJECT AND PROPERTIES OF ACCORDANCE SHALL NOT EXCUSE SHALL DESCRIPTION OF THE COMPLETE OF SHALL PROSECULATION OF ACCORDANCE SHALL PROSECULATION OF ACCORDANCE SHALL PROSECULATION OF THE CONTRACTOR SHOULD PROVIDE SHALL PROSECULATION EXPENSES OF CONTRACTOR SHALL
- ALL DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS, ALL COCRDINATION IS THE RESPONSBILITY OF THE CONTRACTOR.
- DETAILS INCLIDED HEREIN ARE INTENDED TO SHOW THE END RESULT OF DESIGN, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR SITUATIONS AND SUCH MODIFICATIONS SHALL BE INCLIDED AS PART OF THE SCORE OF WORLD.
- THE CONTRACTOR INVOLVED SHALL WIST THE JOB SITE AND FAMILIARZE HAISELF WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS, AND CONFIRM THAT THE PROJECT MAY BE ACCOMPLISED AS SHOWN PERFOR TO PROGEDIEND WITH CONSTRUCTION, ANY ERRORS, CAUSSIONS OR DISCREPANCES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGED.
- VERTY ALL MEASUREMENTS AT THE SITE BEFORE CRIDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INCLICATED ON THE CONSTRUCTION DAMAINGS. SUBMET ANY DISCRESSAFOR IN DIMENSIONS TO THE CONSTRUCTION MANAGER FOR CONSIDERATION BEFORE PROCEEDING WITH WORK IN THE AFFECTED AREA.
- NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST OR OF THE DIFFICULTIES OR CONDITIONS THAT MAY BE DISCOUNTERED OR MAY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK MLL BE ACCEPTED AS AN EXCUSE FOR PAULIE OR GOMESON ON THE PART OF THE CONTRACTOR TO FURFALL EVERY DETAIL OF THE REQUIREMENTS GOVERNING THE WORK.
- THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM THAT IS NOT CLEARLY DEFINED BY THE CONSTRUCTION DOCUMENTS.
- 10. THE CONTRACTOR SHALL SUPPLYING AND DIRECT THE PROJECT DISCREDE HEREN. THE CONTRACTOR SHALL BE SOLLY RESPONSE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNOLIS, SQUENCES AND PROCEDURES, SURGET TO, PROPAL OF THE CONSTRUCTION MANAGER AND FOR COORDINATING ALL PORTIONS OF THE MORE UNDER THE CONTRACT.
- THE CONTRACTOR SHALL FAMILIARIZE HMSELF WITH AND INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES AND OFDMANCES TAKE PRECIDENCE.
- 12. THE CONTRACTOR SHALL PROMDE AT THE PROJECT SITE A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATION AND THE BUILDING PERMIT FOR USE BY ALL PERSONAL INVOLVED WITH THE PROJECT.
- PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2A 10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
- THE EXISTING STRUCTURAL COMPONENTS OF THIS PROJECT SITE ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION, UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- CONTRACTOR SHALL KEEP THE CENERAL AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DRY, DESIRS AND RUBBISH AND READING FOUNDATION FOR SHEARMING ON PREMISES SHALL BE LET IN A CLEAN CONDITION AND TREE FROM DUST, PAINT SPOTS OR SHEARMING ON THE PROMISES OF ANY NUTURE.
- 17. ALL VISIBLE ELEMENTS SHALL BE PAINTED TO MATCH AND BLEND IN WITH THE EXISTING SURROUNDING ELEMENTS OR IN ACCORDANCE WITH REQUIREMENTS OF OWNER OR REQUILATORY AGENCIES.

# **VASONA PG&E**

SF-938-01

# \* cingular

WIRELESS

#### PROPERTY DESCRIPTION

ADDRESS: ADJACENT TO 865 VASONA STREET MILPITAS, CA 95035

APN: 022-05-079

#### PG&E SITE REFERENCE

LOCATION MAP

N.T.S.

TOWER-# 5/41

MILPITAS, CA 95035

LINE NAME: NEWARK - MILPITAS 115KV

PROJECT CONTACTS

#### APPLICANT

CINCUI AR WIRFLESS 4420 ROSEWOOD DR. BUILDING #2, 3RD. FLOOR PLEASANTON, CA 94588 CONTACT: DIANE SLATTERY (925) 227-4254

#### PROPERTY OWNER

CITY OF MILPITAS 1265 N. MILPITAS BOULEVARD MILPITAS, CA 95035 CONTACT: BILL MARION (408) 586-2701 PG&F CONTACT: RICHARD SARTINI (415) 308-9400

#### CONSTRUCTION MANAGER

CINGULAR WIRELESS 4420 ROSEWOOD DR. BUILDING #2, 3RD. FLOOR PLEASANTON, CA 94588 CONTACT: JAY THOMAS (925) 413-8448

## **ENGINEERS**

1625 JULIAN DRIVE EL CERRITO, CA 94530 CONTACT: ART CHEN (510) 234-9086

#### SITE ACQUISITION

4420 ROSEWOOD DR. BUILDING #2, 3RD. FLOOR PLEASANTON, CA 94588 CONTACT: BRIAN LÉEGWATER (510) 388-0342

#### PLANNERS

RUTH + GOING 2216 THE ALAMEDA SANTA CLARA, CA 95050 CONTACT: LEAH HERNIKL (408) 236-2400

#### SURVEYORS

QUIET RIVER LAND SERVICES, INC. 5673 W. LAS POSITAS BOULEVARD, SUITE 215 PLEASANTON, CA 94588 CONTACT: KEVIN McGUIRE (925) 867-3380

## PROJECT DESCRIPTION

THIS PROJECT IS TO INSTALL AND OPERATE A LOCAL PERSONAL COMMUNICATIONS SYSTEM (PCS) SITE WHICH TRANSMITS AND RECEIVES RADIO SIGNALL SA PART OF A REGIONAL POS NETWORK FOR CURCULAR WIRELESS. THE BASIC COMPONENTS OF THIS SYSTEM ARE:

THREE PAIRS OF ANTENNAS, EACH 51" TALL  $\times$  13" WIDE  $\times$  3" DEEP AND WEIGHING 20 LBS, MOUNTED ON AN EXISTING PG&E TOWER

FOUR BASE TRANSCEIVER STATIONS (BTS), EACH 5'-10" TALL : 4-3" WDE x 3'-1" DEEP AND WIGHING 1708 LBS, LOCATED AT THE BASE OF THE TOWER BEHIND WOOD FENCING.

ELECTRICAL AND TELEPHONE PANELS MOUNTED ON FRAMES NEAR THE BTS.

ENVIRONMENTAL INFORMATION: EACH BTS WILL HAVE A MAXIMUM OF FOUR BATTERIES WITH  $3.3\,$  QUARTS OF ACID IN EACH BATTERY.

#### INDEX

TITLE SHEET PLANS AND ELEVATIONS PLAN, ELEVATION AND DETAILS L-1 LANDSCAPE PLAN

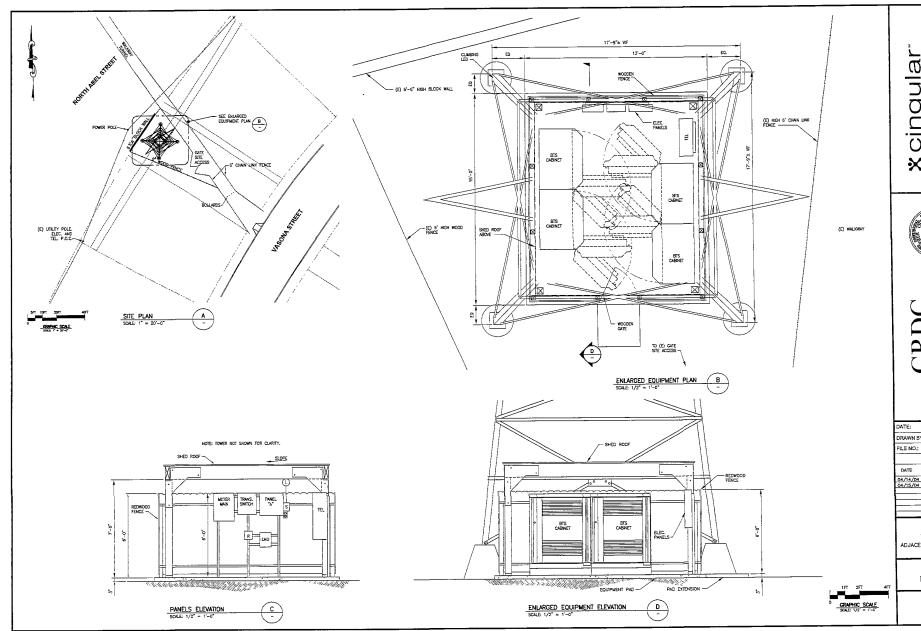
IRRIGATION PLAN

AUG 3 0 2004

TITLE SHEET

WARYLHIN CALAVERAS BOXILEVARO

CITY OF MILPITAS



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4420 Rosewood Dr. Bldg. 2, 3rd Floor Pleasenton, CA 94588

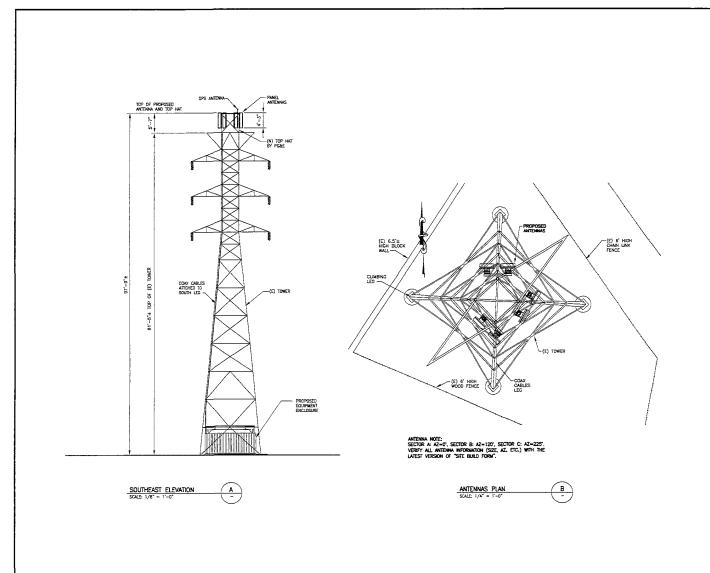
ENGINEERS 1625 Julian Drive El Cerrito, CA 94530 phone: 510.234,9088 fax 510,234,6188

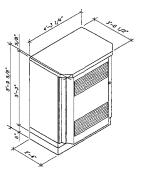
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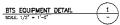
SF-938-01 VASONA PG&E
ADJACENT TO 865 VASONA S'
MILPITAS, CA

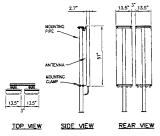
PLANS AND ELEVATIONS

A-1









NOTE: ONLY ONE PAIR OF ANTENNAS SHOWN FOR CLARITY



DATE:

WIRELESS

4420 Rosewood Dr. Bldg. 2, 3rd Floor Pleasanton, CA 94588

×cingular

SF-938-01 VASONA PG&E ADJACENT TO 865 VASONA ST MILPITAS, CA

GRAPHIC SCALE SCALE 1/2" = 1'-0"

A-2

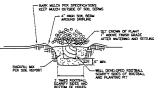
DRAWN BY: AS FILE NO.: SF-938-01 GRAPHIC SCALE

04/13/04

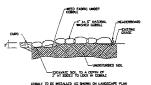
ENGINEERS 1625 Julian Drive El Cerrito, CA 94530 phone: 510.234,9088 fax 510.234,6188

PLAN, ELEVATION AND DETAILS

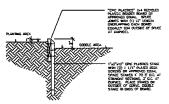
ADJUSTING WATERING OF NEW PLANTINGS AS REQUIRED TO PROMOTE HEALTHY GROWTH WEDDING AND READONL OF WEDDS FROM PLANTER AREAS, REPLACEMENT OF NAY DEAD, DYNING, OR DAMAGED PLANTS AND OR LAWN APPLYING FERTILIZER PER SEASONAL REQUIREMENTS.



SHRUB PLANTING DETAIL



COBBLE DETAIL



EXPANSION

THE CHARGE PAIN - 1/3, CINES BELIEFED DIVER OR BONNER ID VITTOM LOS JEDINITÉS

CONNERS PAINT MOL ES JEDINIES JAVAN 51, MYDING

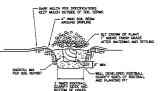
MOLLES

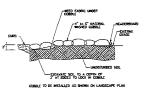
PLANT LIST

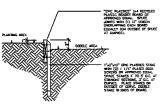
SIZE BOTANICAL NAME 1 GAL 5 GAL MAHONIA AQUIFOLIUM 'ORANGE FLAME' PARTHENOCISSUS TRICUSPIDATA 5 GAL PLUMBAGO AURICULATA 'ROYAL CAPE' 5 GAL ROSA 'FLOWER CARPET' ROSMARINUS O. "HUNTINGTON BLUE"

CONTRACTOR SHALL WEED AND REMOVE ALL DELETERIOUS MATERIAL FROM SITE PRIOR TO PLANTING.

BACKFILL MIX FOR PLANTING - PROVIDE 1/3 CLEAN NATIVE SOIL MIXED WITH 2/3 NITROFIED ORGANIC SOIL AMENDMENTS FOR EACH PLANTING HOLE. ALL SHRUBS SHALL RECEIVE A 5" THICK LAYER OF BARK MULCH OVER WEED FABRIC. SEE PLANTING LAYOUT FOR BARK MULCH AREA.







PLASTIC HEADERBOARD DETAIL

WIRELESS ×cingular 4420 Rosewood Dr. Bldg, 2, 3rd Floor Pleasanton, CA 94588

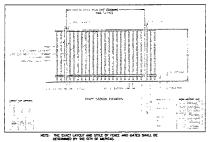
BORRECCO/KILIAN & ASSOCIATES, INC. LANDSCAPE ARCHITECTS 1241 Plne Street Martinez, Californit Phone: 925/372-35 FAX: 925/372-35

PERSONAL AL VILLA DOUG TOKE, RESPENÇÎTE DEMENSÎ PROMED EME BOTÎNCO/YALW E ASSOUNEN, NE PERSONAL SILVE SOUNESTE DE SERVÎNE DE ME A PERSONAL SILVE DATE: 08/04/04 DRAWN BY: B.K FILE NO.. SF-938-01 REVISIONS

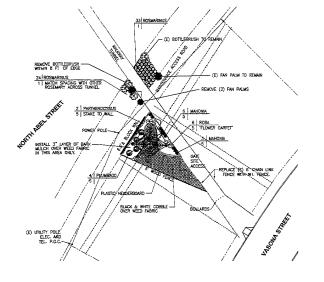
SF-938-01 VASONA PG&E ADJACENT TO 865 VASONA ST MILPITAS, CA

LANDSCAPE PLAN

L-1



WROUGHT IRON FENCE DETAIL



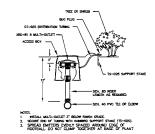


SITE PLAN SCALE: 1" = 20'-0"

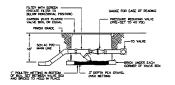
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# MISH CRADE CLASS 200 PVC LATERAL LIME CSCN. 40 PVC WALL ADAPTER. SCR, 80 PMC MPPCE PLECTRICAL WINE TO FOLLOW WARRING AND BACK TO CONTROLLER

## NOTAS: BENELE AND TAPE WISE EMERY TO FEET 2 PROVIDE 24" EXPLANSON LOOP AT EACH WISE COMMECTION. 3 PROVIDE \$100 SCUTCHEON SOLIC PLACE, OR DOUGL AT ALL, SPLICES. 4 PROVIDE \$100 ALL OF SUCCESSIONERS THE WALVE BOX FOR SUPPORT REMOTE CONTROL VALVE DETAIL



MULTI-DRIP DETAIL

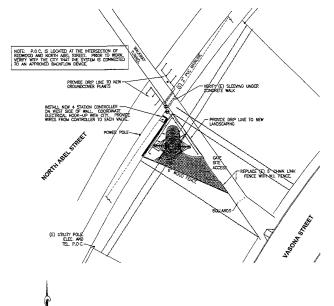


FILTER/PRES REG. DETAIL



- 3. TAPE AND SUPCLE WIRE EVERY TEN FEET (10"). PROMOS: MANIBOL 6" SOE CLEARANCE FROM MANIBOL.
- TRENCHING DETAIL

WALL CLOCK DETAIL



IRRIGATION PLAN SCALE: 1" = 20' - 0"

THESE DRAWINGS ARE DESIGN DRAWINGS. THE LAYOUT AND SPRINCER/DRAY DESIGN IS BASED ON SPECIAL DURISIONS AS SHOWN ON THE STE PLAN, OR SCALED FROM THE LANDSCAPE PLAN ACTUAL DURISIONS AND/OR CONSTRUCTION MAY WARP AT THE EDSCENDING OF THE OWNERS. COLOUR, COUNTACTION SHAWNERS, AND ORGANIZED AND AND CONTROL OF THE CONTRACTOR SHALL PREPARE A DETAILED "AS-BULL" DRAWING FOR SUBMITTAL TO THE DIFFERENT SEE AREA(S). THE CONTRACTOR SHALL PREPARE A DETAILED "AS-BULL" DRAWING FOR SUBMITTAL TO THE

ALL LATERAL LINES ARE 3/4" DIAMETER UNLESS SPECIFICALLY NOTED OTHERWISE ON THE IRRIGATION PLANS.

IRRIGATION LEGEND

•

 $\left\langle \mathbf{w_{M}}\right\rangle$ 

 $\bowtie$ 

A

RAINBIRD XBD-81 8 MULTI-OUTLET ON  $1/2^{\prime\prime}$  SCH 80 RISER INSTALLED IN SEB-6X ACCESS BOX

FEBCO 825Y 1\" REDUCED PRESSURE BACKFLOW DEVICE

STATION CONTROLLER NUMBER VALVE SIZE G.P.M.

LEMEUR EM-100 ELECTRIC METER/CONTROLLER ENGLOSURE WITH IRRI-TROL MC-8 PLUS-B CONTROLLER

(E) SCHEDULE 40 PVC MAIN LINE, 2" SIZE, WITH ELECTRICAL WIRING FROM CONTROLLER TO EACH VALVE VERIFY CLASS 200 PVC LATERAL LINE (ALL LATERAL LINES ARE 3/4" SIZE UNLESS NOTED OTHERWISE ON PLAN)

RAINBIRD 100-PGA 1\* ELECTRIC VALVE WITH RAINBIRD RBY-100-150X FILTER AND PSI-M30X FRESSURE REGULATOR

POINT OF CONNECTION AT 1\" WATER METER (VERIFY SIZE AND LOCATION)

SIZE LICHTON ME AVAILABLE PRESSURE OF P.O.C. PROST TO RESTAULTION. IF IDEPTENDED THAN WAIT IS SHOWN OF THE PREACHON PAIL STOP WORK AND CONTACT BEAN IN WITHING FOR RESOLUTION. FALLING TO DO SO WILL MEAN THE LANGSCAPE CONTRACTOR ACCEPTS ALL RESOLVABILITY AND COSTS FOR REPAIRS, MODIFICATIONS OR OTHER WORK INCESSIANT TO PROMICE THE OWNER WITH A PROPER WORKING REPORTION STITLING.

EXACT LOCATION OF CONTROLLER(S). COORDINATE WITH OWNER AND ELECTRICAL CONTRACTOR FOR LOCATION OF 110 VOLT ELECTRICAL STUBOUT FOR CONTROLLER(S). IRRIGATION CONTROLLERS ARE REQUIRED TO HAVE THEIR OWN. SEPARATE ELECTRICAL METER.

WHERE USTRIAL GESTRUCTIONS IN THE LANGELAGE AREA INTERFEC WITH THE SPRAY PATTERS OF A SERMALEST. WITH CONTRACTOR SMALL ALASSET REGAL LOCATIONS OF AND SERMANTES A REQUIRED TO REPORT BY LAUCOWERAGE. THIS MAY FROM THE THE ADDITION OF A WARRALE ARE PATTERN SERRIFICATE(S) TO EACH SDE OF THE OBSTRUCTION. ALL SIGN ADJIGHTENTS SMALL BE AMORA THE OCCUS TO THE OWNER.

SET ALL DIRP DUTLETS TWO NOISES (2") BELOW FINES GRADE OR DIALOSED IN PLASTIC MUTTER BOXES AS SPECIFIED ON THE TAILS. BLACK
DOES OF DIFFERENCES IN THE PERSON OF THE PERSO

PLANT SIZE 1 GALLON ACCENT SHRUB 1 GALLON SHRUB 5 GALLON SHRUB 15 GALLON SHRUB 15 GALLON PLANT 24" BOX PLANT

THE CONTRACTOR SHALL HALLES H, HE SH THE CONTRACTOR OF FOUR (1) SEP CRITICAL SHALL HALLES H, HE SH THE CONTRACTOR OF FOUR CLOSER SHACKED IN THE CHARGE HE SHALL SH

ZWALI SURFACE

WIRE - #14 DIRECT BURIAL GLUE- WELD-ON 711, OR EQUAL PRIMER - WELD- ON P-70, OR EQUAL ASSOCIATES, DESIGN IS BASED ON CONNECTING TO AN EXISTING 2" MAINLINE, WITH A MINIMUM STATIC PRESSURE OF 80 PSI AND A SAFE FLOW OF 75 G.P.M. AVAILABLE VERIFY IN WRITING TO BIKALA PRIOR TO INSTALLING SYSTEMS સ્ત્ર

BORRECCO/KILIAN

DATE: FILE NO.: SF-938-01 REVISIONS

> ADJACENT TO 865 VASONA ST MILPITAS, CA

IRRIGATION PLAN

